AMENDMENTS TO THE SPECIFICATION

1. (Currently Amended) A method for characterising nucleic acid molecules, which comprises the steps of:

i) introducing a modified base which is a substrate for a DNA glycosylase into a DNA molecule **by enzymatic extension of the molecule on a template nucleic acid**;

ii) excising the modified base by means of said DNA glycosylase so as to generate an abasic site;

iii) cleaving the DNA at the abasic site so as to generate and release an extendible upstream DNA fragment having a 3' hydroxyl terminus, wherein the ~~specificity~~ **sequence** of the extendible fragment is determined by the sequence of the ~~target~~ **template** nucleic acid; and

iv) incubating the released extendible upstream DNA fragment in the presence of an enzyme allowing for extension thereof and a **selected** template nucleic acid, which has partial or full sequence complementarity to the upstream fragment and analysing resultant fragment(s).

2. (Original) A method according to Claim 1, wherein the upstream fragment is generated by cleaving the DNA at the 5'side of the abasic site, such that the 3'terminus of the upstream fragment bears a hydroxyl group.

3. (Original) A method according to Claim 2, wherein the cleavage is achieved with a 5'AP endonuclease.

4. (Original) A method according to Claim 1, wherein the upstream fragment is generated by cleaving at the 5' side of the abasic site so as to leave a phosphate group at the 3'terminus of the upstream fragment and removing the phosphate group so that the upstream fragment bears a hydroxyl group at the 3'terminus.

5. (Original) A method according to Claim 1, wherein the upstream fragment is generated by cleaving at the 3'side of the abasic site so as to generate a deoxyribose phosphate group at the 3'terminus of the upstream fragment and subsequently removing the deoxyribose group to leave a hydroxyl group at the 3'terminus.